



ODS - Optic Drone Solutions, LLC

“High Quality, Superior, Data Rich, Aerial Videos, Photo Images and More”

Inspections - Verification - Confirmation - Technical - Assistance

7940 Denham Chase, Denham Springs, Louisiana 70726

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Website ODS - Optic Drone Solutions, LLC

ods-opticdronesolutions.com

ODS - Alternative Solutions - Technical Services Division

September 20, 2023

Professional Checking/Verification Services:

Instrumentation & Associated Electrical Design/Engineering/Documents/Drawings

Engineering/Procurement/Construction (EPC) Projects

Process Control & Automation - DCS/SIS/PLC/Etc.

Analytical Measurement/Monitoring & Control (Process/Environmental)

Emergency Shut Down (ESD) and Fire/Gas/Detection Safety Systems

Services Offered:

Third (3rd) Party, Comprehensive Checking services. Intermediate and/or Additional Final Continuity Checking to reduce, I&E Design/Engineering Project Deliverable(s), Construction/Installation, Procurement, Expenditures.

Reviewing/Verification/Checking/Commenting, for I&E Design/Engineering Documents/Drawings.

Complete or Partial Work Package(s), Tasks/Assignments/Efforts, for Efficient Turnaround/Return.

Including - Initial EPC Design/Engineering/Drafting “*Execution Plan Strategy*”, for your Design Team needs.

Document/Drawing Checking - Effort/Achievement: “ISO 9001 Type Procedures”

In Lieu of, Initial Engineering, Design/CADD/Drafting, Project Milestones. Projects may require Intermediate Checks and Additional Final Checks. Separate Individuals not involved in the original Engineering/Design, In-House or Out-Sourced, Before any/all Project Deliverable/Hard Copy/Documents/Drawings are Formally Issued for Client/Customer/Approvals. “Issued for Approval” “Issued for Design” “Issued for Purchasing” “Issued for Construction” *Scenarios or Requirements*.

Performed by qualified personnel to Review/Verify/Confirm on Specific/Significant Data/Information, represented, within the Body of a Document/Drawing for Consistencies and Discrepancies, for all Project Deliverable Documents. Document/Drawing/Formats/Sizes/Title Blocks/Borders/Representation/References/etc, are normally established up-front early-on, for Projects, based on Company Standards/Clients/Contractual/Obligations/Agreements, and may be ignored.

There are many Methods/Philosophies/Approaches for Comprehensive Checking. “*Loop Diagrams are a Great Example*” to Weigh-Out Work-Hour Estimates for checking purposes only, partial or complete work packages, for effectiveness.

Typical - EPC Project Documents/Drawings Summary (Complete or Partial Checking):

Process and Instrument Diagrams (P&ID's)

Instrument Index

Loop Diagrams/Drawings

Instrument Data Sheets

I/O list/Loading/Assignments

DCS/SIS/PLC/F&G Wiring Diagrams

Junction Box/Marshalling Cabinet/Panel Wiring Diagrams

Cable Schedules/Lists

Communications/Fiber Optics/Wiring/Block Diagrams

Cause & Effect Matrix/Logic/Diagrams/Document/Drawings

Cabinet/Panel/Layouts/Arrangements

Location Plans/Layouts

Installation Details/Process/Electrical/Material Take-Off (MTO's)

Electrical Requirements/Power/AC/DC/Grounding/MCC/SWGR/Schematic/Interfaces/Wiring/etc.

Analyzers/Systems: Field/Sample Systems/Shelters/Buildings/Vendor Packages/Review/Interfaces

Misc. Stand Alone/Vendor Package/Process Equipment/Review/Interfaces

Engineering/Design Project Specifications/Constructability/Philosophies

Drawing List/Document Control

Procurement/Purchasing Documents



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Documents/Drawings:

PDF (Portable Document Format) Files Preferred.

Eliminate Any/All/Potential/Possible/Manipulation(s)/Changes/Errors to Original “Software Files” (.docx/.xlsx/.dwg/etc.).

To Ensure Integrity/Incorruptibility for all Checking Efforts/Actions.

Electronic File Transfer(s) To/From, via Email/Google Drive/Dropbox/Clouds/etc.

Incorporate/Mark-Up/Comments, Utilizing Company Standard/Drafting/Checking/Mark-Up Color Codes:

Yellow - Checked/No Comment

Red - Comment

Green - Delete

Blue - Hand Written/Verbal Comment/Suggestion/Information/etc.

This Document Control Procedure was followed and required while working for various Engineering Companies away from the Home Office (Project Field Assignments), Both Domestic and Abroad. “ISO 9001 Type Procedures”

Communication Methods and “PDF” File Transfers:

Email/Phone/Cell/Google Meet/Google Drive/Video/Conference Calls/Etc.

Additional Specific Information may be Required for Checking (Multi-Disciplines):

Process Department: (Review/Comment)

PFD, P&ID, Instrumentation/Analytical & Electrical, Device/Equipment, Tag Number/Control System(s) Interface/Representation.

Material Balance: Documents, Process/Product Information, Per Piping/Line/Equipment, (Temperature/Pressure/Flow Rates/etc.).

Control Narratives/Special Notes/References/etc.

Piping & Mechanical Department: (Review/Comment)

Piping Specifications, Materials/Hook-Ups/Specialty Items. For All Instrument & Electrical Device/Equipment Installations.

Line List/Rotating/Equipment/3D-Model/Layouts/Plans & Reviews/etc.

Piping Isometric(s) (ISO's), Instrument “Tap” Locations/Orientations/etc.

Civil & Structural Department: (Review/Comment)

Above Ground & Under Ground, Project/Rules/Regulations/Requirements.

Control Room/Building(s), Remote/Local Shelter(s)/etc. Architectural, Project/Rules/Regulations/Requirements.

Pipe Rack/Structure(s)/Supports for all Instrumentation & Electrical Device/Equipment/Cable/Tubing/Tray Accommodations.

Procurement & Purchasing Department: (Review/Comment)

Inquiries/Requisitions/Quotes/Documents/Technical Reviews.

Clarification(s) for Professional Checking Services Rendered:

Work-Hour Estimate Overview is available for Document(s)/Drawing(s), that Require, Final Checking/Verification for Project Deliverables, Per Contract/Obligations/Commitments/Agreements/Company Standards/etc.

Governing/Support Document(s)/Drawing(s), are Necessary For a Complete/Comprehensive/Thorough/Checking Effort.

Confidentiality/Non-Disclosure/Proprietary, Information Agreements are Welcomed and Encouraged.

ODS will provide Rodney Primes' CV/Resume and personal references upon request.

If you have any questions or concerns, please contact us.

Kind Regards,

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